



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,390	07/05/2001	Dale Francis Obeshaw	H-199376	3506

7590 09/08/2005

EDMUND P. ANDERSON
DELPHI TECHNOLOGIES, INC.
Legal Staff, Mail Code: 480-414-420
P.O. Box 5052
Troy, MI 48007-5052

EXAMINER

MIGGINS, MICHAEL C

ART UNIT PAPER NUMBER

1772

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

MC

Office Action Summary

Application No.

09/899,390

1/2
Applicant(s)

OBESHAU, DALE FRANCIS

Examiner

Michael C. Miggins

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 30-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 30-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

REJECTIONS WITHDRAWN

1. All of the 35 USC 112 2nd paragraph, 35 USC 103(a) and obviousness-type double patenting rejections set forth in the non-final rejection of 2/17/05, pages 2-10, paragraphs 5-15 have been withdrawn. The indication of allowable subject matter set forth in the non-final rejection of 2/17/05, page 10, paragraph 16 has been withdrawn.

REJECTIONS REPEATED

2. There are no rejections repeated.

ANSWERS TO APPLICANT'S ARGUMENTS

3. Applicant's arguments of 6/16/05 have been carefully considered but are moot in view of the new grounds for rejection set forth below.

NEW REJECTIONS

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 35-38 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to

Art Unit: 1772

one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 35-38 recite the limitation "wherein a portion of an outer surface of the structural member has a polygonal shape" which was not disclosed in the original disclosure and thus represents new matter. A careful review of the original disclosure reveals that applicant does not have support for the limitation "wherein a portion of an outer surface of the structural member has a polygonal shape" in the original disclosure and therefore the limitation is new matter. The scope of said limitation includes an outer surface wherein only a portion thereof has a polygonal shape and the rest of the outer surface has a different or non-polygonal shape. The original disclosure only supports an outer surface which has polygonal or non-polygonal outer surface not both a polygonal and non-polygonal portion in the same outer surface.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-7, 10-14, 30-33, 35, 37-38, 40, 42 and 44 are rejected under 35

U.S.C. 102(e) as being anticipated by Steele et al. (US 6090465).

Steele discloses a contoured structural member (abstract), comprising at least one contoured inner layer comprising a composite material and at least one contoured outer layer comprising a composite material (column 4, lines 5-37 and Figs. 4-7 and 9) and wherein a portion of the outer surface of the structural member has a polygonal shape (Fig. 9 and column 3, lines 1-8), wherein the structural member has a closed configuration (Figs. 1, 4-7 and 9), an interior region defined by an inner surface of the at least one inner layer, wherein the interior region is hollow, partially filled, or completely filled (Figs. 1, 4-7 and 9), wherein the at least one of the composite materials is formed from a prepreg material (column 4, lines 5-12), wherein the prepreg material comprises a plurality of layers (column 4, lines 5-12 and Fig. 7), wherein the plurality of layers have a plurality of fibers with an orientation ranging from 0 to 90 degrees (column 5, lines 37-58), an overwrap on a portion of the outer surface of the structural member (column 4, lines 50-52), wherein the overwrap is circumferentially located only on a portion of the outer surface containing the polygonal shape (since the entire outer surface of the structural member of Fig. 8 is polygonal and the overwrap covers the entire outer surface, column 4, lines 38-55) (applies to instant claims 1-7, 10-14, 30-33, 35, 37-38, 40, 42 and 44).

With regards to instant claims 12, 14, 37, 40 and 44, Steele inherently discloses wherein the composite overwrap or overwrap collar reduces a secondary loading condition of the outer surface of the structural member where it is located since the overwrap is a composite fibrous overwrap which is protective and covers the entire structural member (see column 4, lines 38-55).

Art Unit: 1772

With regard to claims 30-32, claims 30-32 recite the same structures as are recited in the rest of the independent claims. It has been found that even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Therefore any process limitations recited in claim 30 have been given little to no patentable weight. As written, the only product limitations in claims 30-32 are "a contoured structural member" the rest of the limitations are method limitations and are not germane to the patentability of the product in a product claim (see MPEP 2113).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Steele et al. (US 6090465) in view of Reid et al. (U.S. Patent No. 6,308,809).

Steele discloses applicant's invention substantially as claimed. However, Steele fails to disclose a contoured structural member, wherein the structural member has at least one end with the at the at least one initiator not located near the at least one end.

Reid et al. teach a contoured structural tube (abstract, Figs. 2a and 2b), wherein the structural member has at least one end with the at the at least one initiator not located near the at least one end (18 from Fig. 3a) for the purpose of providing reduced crush initiation forces in composite tubes for absorption of impact energy.

Therefore it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to have provided at least one end with the at the at least one initiator not located near the at least one end in the contoured structural member of Steele in order to provide reduced crush initiation forces in composite tubes for absorption of impact energy as taught or suggest by Reid et al..

10. Claims 9, 34, 36, 39, 41 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steele et al. (US 6090465).

Steele does not specifically disclose that the overwrap is located only at an end portion of the structural member. However, it has been found that, in the absence of clear and convincing evidence of an unexpected result, a change in shape is obvious and well within the level of one of ordinary skill in the art (MPEP 2144). It would have been obvious to one of ordinary skill in the art at the time applicant's invention was made, especially since applicant has argued that the overwrap is not critical to the invention (see applicant's remarks of 6/16/05, pages 10-11), to have provided overwrap

Art Unit: 1772

located only at an end, top or side portion of the structural member in order save on costs and materials (applies to instant claims 9, 34, 36, 39, 41 and 43).

Double Patenting

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-7, 9-14, 30-44 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over either claims 1-20 of copending Application No. 09/899,320, claims 1-20 of copending Application No. 09/668,429, claims 1-13, 15-41 of copending Application No. 09/704,228, claims 1-39 of copending Application No. 09/900,762, or claims 1-20 and 33-35 of copending Application No. 09/809,778 in view of Steele et al. (US 6090465).

Claims 1-14 of copending Application No. 09/899,390, claims 1-20 of copending Application No. 09/668,429, claims 1-13, 15-41 of copending Application No. 09/704,228, claims 1-39 of copending Application No. 09/900,762, or claims 1-20 and 33-35 of copending Application No. 09/809,778 all recite a contoured structural

Art Unit: 1772

member, comprising at least one contoured inner layer comprising a composite or material, at least one contoured outer layer comprising a composite material, wherein the structural member has a closed configuration, wherein the composite material is a reinforced resin matrix material, wherein the reinforced resin matrix material comprises at least one prepreg ply, wherein both the at least one inner layer and the at least one outer layer comprise a composite material (applies to instant claims 1-7, 10-14, 30-33, 35, 37-38, 40, 42 and 44).

With regard to claims 30-32, claims 30-32 recite the same structures as are recited in the rest of the independent claims. It has been found that even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). Therefore any process limitations recited in claim 30 have been given little to no patentable weight. As written, the only product limitations in claims 30-32 are "a contoured structural member" the rest of the limitations are method limitations and are not germane to the patentability of the product in a product claim (see MPEP 2113).

Copending Application No. 09/899,390, copending Application No. 09/668,429, copending Application No. 09/704,228, copending Application No. 09/900,762, or copending Application No. 09/809,778 all recite applicant's invention substantially as

Art Unit: 1772

claimed. However, none of the copending applications recite a contoured structural member wherein a portion of an outer surface of the structural member has a polygonal shape, wherein the interior region is hollow, partially filled or completely filled, wherein the prepreg material comprises a plurality of layers, wherein the plurality of layers have a plurality of fibers with an orientation ranging from 0 to about 90 degrees and further comprising an over wrap on the polygonal surface of the outer surface of the structural member.

Steele discloses a contoured structural member (abstract), comprising at least one contoured inner layer comprising a composite material and at least one contoured outer layer comprising a composite material (column 4, lines 5-37 and Figs. 4-7 and 9) and wherein a portion of the outer surface of the structural member has a polygonal shape (Fig. 9 and column 3, lines 1-8), wherein the structural member has a closed configuration (Figs. 1, 4-7 and 9), an interior region defined by an inner surface of the at least one inner layer, wherein the interior region is hollow, partially filled, or completely filled (Figs. 1, 4-7 and 9), wherein the at least one of the composite materials is formed from a prepreg material (column 4, lines 5-12), wherein the prepreg material comprises a plurality of layers (column 4, lines 5-12 and Fig. 7), wherein the plurality of layers have a plurality of fibers with an orientation ranging from 0 to 90 degrees (column 5, lines 37-58), an overwrap on a portion of the outer surface of the structural member (column 4, lines 50-52), wherein the overwrap is circumferentially located only on a portion of the outer surface containing the polygonal shape (since the entire outer surface of the structural member of Fig. 8 is polygonal and the overwrap covers the entire outer

Art Unit: 1772

surface, column 4, lines 38-55) (applies to instant claims 1-7, 10-14, 30-33, 35, 37-38, 40, 42 and 44).

Therefore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided an outer surface of the structural member has a polygonal shape, wherein the interior region is hollow, partially filled or completely filled, wherein the prepreg material comprises a plurality of layers, wherein the plurality of layers have a plurality of fibers with an orientation ranging from 0 to about 90 degrees and further comprising an over wrap on the polygonal surface of the outer surface of the structural member in the contoured structural members recited in Copending Application No. 09/899,390, copending Application No. 09/668,429, copending Application No. 09/704,228, copending Application No. 09/900,762, or copending Application No. 09/809,778 in order to provide low weight and cost, high impact strength as suggested by Steele.

With regards to instant claims 12, 14, 37, 40 and 44, Steele necessarily discloses wherein the composite overwrap or overwrap collar reduces a secondary loading condition of the outer surface of the structural member where it is located since the overwrap is a composite fibrous overwrap which is protective and covers the entire structural member (see column 4, lines 38-55).

Steele does not specifically disclose that the overwrap is located only at an end portion of the structural member. However, it has been found that, in the absence of clear and convincing evidence of an unexpected result, a change in shape is obvious and well within the level of one of ordinary skill in the art (MPEP 2144). It would have

Art Unit: 1772

been obvious to one of ordinary skill in the art at the time applicant's invention was made, especially since applicant has argued that the overwrap is not critical to the invention (see applicant's remarks of 6/16/05, pages 10-11), to have provided overwrap located only at an end, top or side portion of the structural member in order save on costs and materials (applies to instant claims 9, 34, 36, 39, 41 and 43).

12. Claim 8 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over either claims 1-20 of copending Application No. 09/899,320, claims 1-20 of copending Application No. 09/668,429, claims 1-13, 15-41 of copending Application No. 09/704,228, claims 1-39 of copending Application No. 09/900,762, or claims 1-20 and 33-35 of copending Application No. 09/809,778 in view of Steele et al. (US 6090465), as applied to claims 1-7, 9-14, 30-44 above, and further in view of Reid et al. (U.S. Patent No. 6,308,809).

Copending Application No. 09/899,390, copending Application No. 09/668,429, copending Application No. 09/704,228, copending Application No. 09/900,762, or copending Application No. 09/809,778 all recite applicant's invention substantially as claimed. However, none of the copending applications recite a contoured structural member, wherein the structural member has at least one end with the at the at least one initiator not located near the at least one end.

Read et al. teach a contoured structural tube (abstract, Figs. 2a and 2b), wherein the structural member has at least one end with the at the at least one initiator not

Art Unit: 1772

located near the at least one end (18 from Fig. 3a) for the purpose of providing reduced crush initiation forces in composite tubes for absorption of impact energy.

Therefore it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to have provided at least one end with the at the at least one initiator not located near the at least one end in the contoured structural member of the copending applications in order to provide reduced crush initiation forces in composite tubes for absorption of impact energy as taught or suggest by Reid et al..

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Miggins whose telephone number is 571-272-1494. The examiner can normally be reached on 1:00-10:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

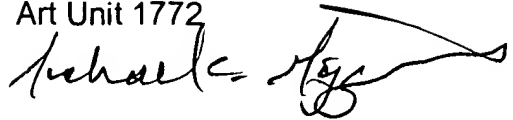
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Application/Control Number: 09/899,390
Art Unit: 1772

Page 13

MCM
September 4, 2005

Michael C. Miggins
Primary Examiner
Art Unit 1772

A handwritten signature in black ink, appearing to read "Michael C. Miggins", with a long, sweeping horizontal stroke extending to the right.